TEJUS
CONSULTANTS

## Test Report on Cement

| | |
|---|---|
| **Project** | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K.BABU RAJU |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 14-06-19 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 42 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 359 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

Note:
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2. The results indicated above are based on the tests carried out on the samples received in the laboratory /Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.

TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K. BABU RAJU |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | PCC |
| Sample Location | At Site/Plant | Date of Sampling | 17-06-19 |
| | | Date of Testing | 17-06-19 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 80 | 80 | 2.67 | 97.33 | 95-100 |
| 20.00mm | 1400 | 1480 | 49.33 | 50.67 | 30-70 |
| 10.00mm | 970 | 2450 | 81.67 | 18.33 | 10-35 |
| 4.75mm | 452 | 2902 | 96.73 | 3.27 | 0-5 |
| Pan | 98 | 3000 | 100.00 | 0.00 | |

Remarks : Satisfactory / Not Satisfactory

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

## TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K. BABU RAJU |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | PCC |
| Location/Source | At Site/Plant | Date of Sampling | 17-06-19 |
| Period of Soaking | 24 hours | Date of Testing | 17-06-19 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 662 | 637 | 671 | |
| B | Weight of oven - dry sample gm. | 655 | 630 | 663 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1691 | 1676 | 1697 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.663 | 2.669 | 2.663 | 2.665 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.069 | 1.111 | 1.207 | 1.129 |

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Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | Tejus Consultants, Bangalore |
| Contractor | K. BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | Proposed Use | concrete |
| Type of Material | Fine aggregate (River Sand/ M sand) | Date of Sampling | 17-06-19 |
| Sample Location | At Site/Plant | Date of Testing | 17-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 215 | 215 | 7.17 | 92.83 | 90 - 100 |
| 2.36 mm | 320 | 535 | 17.83 | 82.17 | 75 - 100 |
| 1.18 mm | 405 | 940 | 31.33 | 68.67 | 55 - 90 |
| 0.600 mm | 490 | 1430 | 47.67 | 52.33 | 35 -59 |
| 0.300 mm | 752 | 2182 | 72.73 | 27.27 | 8-30 |
| 0.150 mm | 625 | 2807 | 93.57 | 6.43 | 0 - 10 |
| Pan | 193 | 3000 | | | - |

Remarks : ✓ Satisfactory / Not Satisfactory

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Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | PCC |
| Sample Location | At Site/Plant | Date of Sampling | 17-06-19 |
| | | Date of Testing | 17-06-19 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 83 | 83 | 2.77 | 97.23 | 95-100 |
| 20.00mm | 1395 | 1478 | 49.27 | 50.73 | 30-70 |
| 10.00mm | 965 | 2443 | 81.43 | 18.57 | 10-35 |
| 4.75mm | 449 | 2892 | 96.40 | 3.60 | 0-5 |
| Pan | 108 | 3000 | 100.00 | 0.00 | |

**Remarks :** ✓ Satisfactory / Not Satisfactory

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Yelahanka Zone, B.B.M.P.,
Bangalore.

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# TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | Tejus Consultants, Bangalore |
| Contractor | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | Proposed Use | P.C.C |
| Type of Material | Fine aggregate (River Sand/ M sand) | Date of Sampling | 17-06-19 |
| Sample Location | At Site/Plant | Date of Testing | 17-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 211 | 211 | 7.03 | 92.97 | 90 - 100 |
| 2.36 mm | 336 | 547 | 18.23 | 81.77 | 75 - 100 |
| 1.18 mm | 416 | 963 | 32.10 | 67.90 | 55 - 90 |
| 0.600 mm | 489 | 1452 | 48.40 | 51.60 | 35 -59 |
| 0.300 mm | 765 | 2217 | 73.90 | 26.10 | 8-30 |
| 0.150 mm | 615 | 2832 | 94.40 | 5.60 | 0 - 10 |
| Pan | 168 | 3000 | | | - |

**Remarks :** Satisfactory / Not Satisfactory

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Bangalore.

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## TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | PCC |
| Location/Source | At Site/Plant | Date of Sampling | 17-06-19 |
| Period of Soaking | 24 hours | Date of Testing | 17-06-19 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 667 | 645 | 635 | |
| B | Weight of oven - dry sample gm. | 660 | 638 | 627 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1694 | 1675 | 1675 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.661 | 2.604 | 2.668 | 2.644 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.061 | 1.097 | 1.276 | 1.145 |

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Bangalore.

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CONSULTANTS

## Test Report on Cement

| | |
|---|---|
| **Project** | Construction and Improvments of Toilet in Ward No 08 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K.BABU RAJU |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 17-06-19 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 43Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 365 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Bangalore.

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# Test Report on Cement

| | |
|---|---|
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K. BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 17-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 38 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 355 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| ect | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| nt | Bruhat Bangalore Mahanagar Palike |
| sultant | TEJUS CONSULTANTS |
| tractor | K. BABU RAJU |
| ıple ID | Cement |
| e of Sample ;ed | 18-06-2019 |
| ıple plied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 40 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 358 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 26.00% | 25 % to 35 |

:
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ıved in the laboratory /Site.
ıy Query regarding the report must be reported reported within 15days from the date of testing.

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K. BABU RAJU |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | PCC |
| Sample Location | At Site/Plant | Date of Sampling | 18-06-19 |
| | | Date of Testing | 18-06-19 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 85 | 85 | 2.83 | 97.17 | 95-100 |
| 20.00mm | 1405 | 1490 | 49.67 | 50.33 | 30-70 |
| 10.00mm | 972 | 2462 | 82.07 | 17.93 | 10-35 |
| 4.75mm | 450 | 2912 | 97.07 | 2.93 | 0-5 |
| Pan | 88 | 3000 | 100.00 | 0.00 | |

**Remarks :** Satisfactory / Not Satisfactory

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Assistant Executive Engineer,
Kodigehalli Sub Division,
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Bangalore.

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# Test Report on Cement

| | |
|---|---|
| **Project** | Construction and Improvments of Toilet in Ward No 08 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K.BABU RAJU |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 18-06-19 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 36Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 349 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | PCC |
| Sample Location | At Site/Plant | Date of Sampling | 18-06-19 |
| | | Date of Testing | 18-06-19 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 85 | 85 | 2.83 | 97.17 | 95-100 |
| 20.00mm | 1400 | 1485 | 49.50 | 50.50 | 30-70 |
| 10.00mm | 950 | 2435 | 81.17 | 18.83 | 10-35 |
| 4.75mm | 460 | 2895 | 96.50 | 3.50 | 0-5 |
| Pan | 105 | 3000 | 100.00 | 0.00 | - |

Remarks : ✓ Satisfactory / Not Satisfactory

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | Tejus Consultants, Bangalore |
| Contractor | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | Proposed Use | P.C.C |
| Type of Material | Fine aggregate (River Sand/ M sand) | Date of Sampling | 18-06-19 |
| Sample Location | At Site/Plant | Date of Testing | 18-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 215 | 215 | 7.17 | 92.83 | 90 - 100 |
| 2.36 mm | 330 | 545 | 18.17 | 81.83 | 75 - 100 |
| 1.18 mm | 455 | 1000 | 33.33 | 66.67 | 55 - 90 |
| 0.600 mm | 510 | 1510 | 50.33 | 49.67 | 35 -59 |
| 0.300 mm | 968 | 2478 | 82.60 | 17.40 | 8-30 |
| 0.150 mm | 400 | 2878 | 95.93 | 4.07 | 0 - 10 |
| Pan | 122 | 3000 | | | - |

Remarks : Satisfactory / Not Satisfactory

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
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Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| s | BRUHAT BENGALORE MAHANAGARA PALIKE |
| t | Construction and Improvments of Toilet in Ward No 08 |
| ltants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| actor | K.BABU RAJU |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | PCC |
| tion/Source | At Site/Plant | Date of Sampling | 18-06-19 |
| od of Soaking | 24 hours | Date of Testing | 18-06-19 |

| No. | Test Property | | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | | 687 | 667 | 657 | |
| B | Weight of oven - dry sample gm. | | 680 | 660 | 650 | |
| C | Weight of Pycnometer Filled with water gm | | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | | 1694 | 1694 | 1694 | |
| E | Bulk specific gravity | B / (C + A - D) | 2.537 | 2.661 | 2.731 | 2.643 |
| G | Absorption (%) | (A - B) *100 / B | 1.029 | 1.061 | 1.077 | 1.056 |

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | Proposed Use | concrete |
| Type of Material | Fine aggregate (River Sand/ M sand) | Date of Sampling | 18-06-19 |
| Sample Location | At Site/Plant | Date of Testing | 18-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 208 | 208 | 6.93 | 93.07 | 90 - 100 |
| 2.36 mm | 302 | 510 | 17.00 | 83.00 | 75 - 100 |
| 1.18 mm | 402 | 912 | 30.40 | 69.60 | 55 - 90 |
| 0.600 mm | 482 | 1394 | 46.47 | 53.53 | 35 -59 |
| 0.300 mm | 760 | 2154 | 71.80 | 28.20 | 8-30 |
| 0.150 mm | 638 | 2792 | 93.07 | 6.93 | 0 - 10 |
| Pan | 208 | 3000 | | | - |

Remarks : ✓ Satisfactory / Not Satisfactory

Note:
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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| | BRUHAT BENGALORE MAHANAGARA PALIKE |
| | Construction and Improvments of Toilet in Ward No 08 |
| tants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| ctor | K.BABU RAJU |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| ion/Source | At Site/Plant | Date of Sampling | 18-06-19 |
| d of Soaking | 24 hours | Date of Testing | 18-06-19 |

| lo. | Test Property | | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|---|
| | Weight of sturated surface dry sample gm. | | 632 | 622 | 634 | |
| B | Weight of oven - dry sample gm. | | 625 | 615 | 617 | |
| C | Weight of Pycnometer Filled with water gm | | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | | 1682 | 1690 | 1690 | |
| E | Bulk specific gravity | $\frac{B}{(C+A-D)}$ | 2.778 | 2.971 | 2.817 | 2.855 |
| G | Absorption (%) | $\frac{(A-B)*100}{B}$ | 1.120 | 1.138 | 2.755 | 1.671 |

ote:

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Bangalore.

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CONSULTANTS

## Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 18-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 45 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 345 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |
| Total Weight: | 10000 gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 20 mm down size | Proposed Use | Concrete |
| Sample Location | Plant/At site | Date of Sampling | 18-06-19 |
| | | Date of Testing | 18-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 255 | 255 | 2.55 | 97.45 | 95 - 100 |
| 10.00 mm | 4835 | 5090 | 50.90 | 49.10 | 25 - 55 |
| 4.75 mm | 4211 | 9301 | 93.01 | 6.99 | 0 - 10 |
| Pan | 699 | 10000 | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

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Bangalore.

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CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 19-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 37Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 350 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 26.00% | 25 % to 35 |

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Bangalore.

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CECTC-IWD-049-2019-20 Date: 20.06.2019

ob No.:

# TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : **Bruhat Bangalore Mahanagar Palike.**

Agency : **Sri. K. Babu Raju,** Contractor, Bangalore.

Name of Work : 1.Providing Basic Amenities and Procurement of Dustbins in Ward No.08,Kodigenahalli.2.Providing Modern Dust Bins in Banglore City in Ward No 8. 3.Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli.4.Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. 5. Providing Drinking Water Facility in Maruthinagara and Devinagara in Ward No. 08, Kodigehalli.6.Providing Drinking Water Facility in Ward No. 08, Kodigehalli.7. Construction and Improvments of Tiolet in Ward No 08. 8. Improvements to Footpath and Drains at Sahakaranagara in Ward No. 08, Kodigehalli. 9. Improvements to Roads and Drains in Ward No. 08, Kodigehalli. 10.Improvements of Park in Ward No. 8 Kodigehalli.

Sample Identification: : 10mm,12mm, 16mm. Fe 500 TMT Bars

Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)

Date of test: : 20.06.2019

| Sl.No | Nominal size (dia in mm) | Mass per metre (kg/metre) | TENSILE STRENGTH | | |
|---|---|---|---|---|---|
| | | | 0.20 % proof stress/ yield stress ($N/mm^{2)}$ | Tensile strength ($N/mm^{2)}$ | Elongation, percent on gauge length |
| 1 | 10 | 0.618 | 517 | 555 | 17 |
| 2 | 12 | 0.888 | 535 | 583 | 19 |
| 3 | 16 | 1.580 | 563 | 611 | 20 |

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For Civil Experts

Signature

# 174, Sri Ranga Complex, Amrutha Nagar Main Road, New Bank Colony, Kononakunte, Bangalore 560 062
Mobile : +91 97429 59595 | Tel/Fax : 080 2632 2565 | Email : civilexpertsltd@gmail.com | URL : www.civilexperts.co.in

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CONSULTANTS

## TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | |
|---|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | CONCRETE | |
| Sample Location | At Site/Plant | Date of Sampling | 20-06-19 | |
| | | Date of Testing | 20-06-19 | |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 556 | 556 | 5.56 | 94.44 | 90-100 |
| 10.0 | 4672 | 5228 | 52.28 | 47.72 | 40-85 |
| 4.75 | 4532 | 9760 | 97.60 | 2.40 | 0-10 |
| Pan | 240 | 10000 | | | |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

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Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

## TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | CONCRETE |
| Sample Location | At Site/Plant | Date of Sampling | 20-06-19 |
| | | Date of Testing | 20-06-19 |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 528 | 528 | 5.28 | 94.72 | 90-100 |
| 10.0 | 4695 | 5223 | 52.23 | 47.77 | 40-85 |
| 4.75 | 4555 | 9778 | 97.78 | 2.22 | 0-10 |
| Pan | 222 | 10000 | | | |
| | | | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

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Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engine
Kodigehalli Sub Division
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## TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 20 mm down size | Proposed Use | Concrete |
| Sample Location | Plant/At site | Date of Sampling | 20-6-19 |
| | | Date of Testing | 20-6-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 252 | 252 | 2.52 | 97.48 | 95 - 100 |
| 10.00 mm | 4832 | 5084 | 50.84 | 49.16 | 25 - 55 |
| 4.75 mm | 4210 | 9294 | 92.94 | 7.06 | 0 - 10 |
| Pan | 706 | 10000 | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

## TEST REPORT

| | | | | | |
|---|---|---|---|---|---|
| **Clients** | Bruhat Bangalore Mahanagara Palike | | | | |
| **Project** | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. | | | | |
| **Consultants** | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | | | | |
| **Contractor** | K.BABU RAJU | | | | |
| **Total Weight:** | 10000 gms | | | | |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Type of Material** | 20 mm down size | | **Proposed Use** | Concrete | |
| **Sample Location** | Plant/At site | | **Date of Sampling** | 20-6-19 | |
| | | | **Date of Testing** | 20-6-19 | |
| **IS Sieve Size** | **Weight Retained** | **Cum. Weight Retained** | **Cum. % Retained** | **Cum. % Passing** | **Spec. Limit (%) Passing** |
| **40.00 mm** | 0 | 0 | 0 | 100 | 100 |
| **20.00 mm** | 262 | 262 | 2.62 | 97.38 | 95 - 100 |
| **10.00 mm** | 4832 | 5094 | 50.94 | 49.06 | 25 - 55 |
| **4.75 mm** | 4220 | 9314 | 93.14 | 6.86 | 0 - 10 |
| **Pan** | 686 | 10000 | | | |

**Remarks :** - ✓ Satisfactory / Not Satisfactory

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Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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## TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Consultants | Tejus Consultants, Bangalore |
| Contractor | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | | |
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| Sample Location | At Site/Plant | Date of Sampling | 20-06-19 |
| | | Date of Testing | 20-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 210 | 210 | 7.00 | 93.00 | 90 - 100 |
| 2.36 mm | 306 | 516 | 17.20 | 82.80 | 75 - 100 |
| 1.18 mm | 422 | 938 | 31.27 | 68.73 | 55 - 90 |
| 0.600 mm | 486 | 1424 | 47.47 | 52.53 | 35 -59 |
| 0.300 mm | 710 | 2134 | 71.13 | 28.87 | 8-30 |
| 0.150 mm | 632 | 2766 | 92.20 | 7.80 | 0 - 10 |
| Pan | 234 | 3000 | | | - |
| | | | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

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**TEST REPORT**

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |

# SPECIFIC GRAVITY AND WATER ABSORPTION

## FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| Location/Source | At Site/Plant | Date of Sampling | 20-06-19 |
| Period of Soaking | 24 hours | Date of Testing | 20-06-19 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 648 | 679 | 658 | |
| B | Weight of oven - dry sample gm. | 641 | 672 | 648 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1682 | 1701 | 1690 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.660 | 2.656 | 2.667 | 2.661 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.092 | 1.042 | 1.543 | 1.226 |

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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# Test Report on Cement

| | |
|---|---|
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 20-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 40Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 364 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Assistant Executive Engineer.
Kodigehalli Sub Division,
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Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 12.5 mm down size | | Proposed Use | CONCRETE | |
| Sample Location | At Site/Plant | | Date of Sampling | 21-06-19 | |
| | | | Date of Testing | 21-06-19 | |
| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 560 | 560 | 5.60 | 94.40 | 90-100 |
| 10.0 | 4675 | 5235 | 52.35 | 47.65 | 40-85 |
| 4.75 | 4542 | 9777 | 97.77 | 2.23 | 0-10 |
| Pan | 223 | 10000 | | | |
| | | | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

Note:
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## TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | CONCRETE |
| Sample Location | At Site/Plant | Date of Sampling | 21-6-19 |
| | | Date of Testing | 21-6-19 |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 558 | 558 | 5.58 | 94.42 | 90-100 |
| 10.0 | 4675 | 5233 | 52.33 | 47.67 | 40-85 |
| 4.75 | 4535 | 9768 | 97.68 | 2.32 | 0-10 |
| Pan | 232 | 10000 | | | |
| | | | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

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Bangalore.

TEJUS CONSULTANTS

# TEST REPORT

| | | | | | |
|---|---|---|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | | | | |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. | | | | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | | | | |
| Contractor | K.BABU RAJU | | | | |
| Total Weight: | 10000 | gms | | | |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 20 mm down size | Proposed Use | Concrete |
| Sample Location | Plant/At site | Date of Sampling | 21-06-19 |
| | | Date of Testing | 21-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 258 | 258 | 2.58 | 97.42 | 95 - 100 |
| 10.00 mm | 4839 | 5097 | 50.97 | 49.03 | 25 - 55 |
| 4.75 mm | 4215 | 9312 | 93.12 | 6.88 | 0 - 10 |
| Pan | 688 | 10000 | | | |

Remarks : ✓ Satisfactory / Not Satisfactory

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Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS CONSULTANTS

# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 20 mm down size | Proposed Use | Concrete |
| Sample Location | Plant/At site | Date of Sampling | 21-06-19 |
| | | Date of Testing | 21-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 255 | 255 | 2.55 | 97.45 | 95 - 100 |
| 10.00 mm | 4835 | 5090 | 50.90 | 49.10 | 25 - 55 |
| 4.75 mm | 4211 | 9301 | 93.01 | 6.99 | 0 - 10 |
| Pan | 699 | 10000 | | | |

Remarks : Satisfactory / Not Satisfactory

Note:
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3. Any Query regarding the report must be reported reported within 15days from the date of testing.

Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K. BABU RAJU |

# SPECIFIC GRAVITY AND WATER ABSORPTION

## FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| Location/Source | At Site/Plant | Date of Sampling | 21-06-19 |
| Period of Soaking | 24 hours | Date of Testing | 21-06-19 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 650 | 677 | 658 | |
| B | Weight of oven - dry sample gm. | 643 | 671 | 648 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1683 | 1697 | 1689 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.657 | 2.631 | 2.656 | 2.648 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.089 | 0.894 | 1.543 | 1.175 |

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Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | Tejus Consultants, Bangalore |
| Contractor | K. BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | | |
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| Sample Location | At Site/Plant | Date of Sampling | 21-06-19 |
| | | Date of Testing | 21-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 208 | 208 | 6.93 | 93.07 | 90 - 100 |
| 2.36 mm | 302 | 510 | 17.00 | 83.00 | 75 - 100 |
| 1.18 mm | 402 | 912 | 30.40 | 69.60 | 55 - 90 |
| 0.600 mm | 482 | 1394 | 46.47 | 53.53 | 35 -59 |
| 0.300 mm | 760 | 2154 | 71.80 | 28.20 | 8-30 |
| 0.150 mm | 638 | 2792 | 93.07 | 6.93 | 0 - 10 |
| Pan | 208 | 3000 | | | - |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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# Test Report on Cement

| | |
|---|---|
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K. BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 21-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 35Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 340 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 26.00% | 25 % to 35 |

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Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K. BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 21-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 37 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 346 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 2mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 29.00% | 25 % to 35 |

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Authorised Signatory

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Bangalore.

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CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 25-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 36Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 352 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 26.00% | 25 % to 35 |

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Bangalore.

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Construction and Improvments of Toilet in Ward No 08 | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | |
|---|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | CONCRETE | |
| Sample Location | At Site/Plant | Date of Sampling | 25/06/19 | |
| | | Date of Testing | 25/06/19 | |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 558 | 558 | 5.58 | 94.42 | 90-100 |
| 10.0 | 4675 | 5233 | 52.33 | 47.67 | 40-85 |
| 4.75 | 4535 | 9768 | 97.68 | 2.32 | 0-10 |
| Pan | 232 | 10000 | | | |
| | | | | | |
| | | | | | |

Remarks :

✓ Satisfactory / Not Satisfactory

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Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M20 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 18/06/19 | 25/06/19 | 7 days | 8.122 | 22500 | 300 | 13.33 | 13.41 |
| 2 | 18/06/19 | 25/06/19 | 7 days | 8.146 | 22500 | 302 | 13.42 | |
| 3 | 18/06/19 | 25/06/19 | 7 days | 8.142 | 22500 | 303 | 13.47 | |

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## Test Report on Compressive strength of Solid Block

| | |
|---|---|
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K. BABU RAJU |
| Cross sectional area | 60000mm2 |
| Size of cube | 400mm x 150mm x 200mm |
| No. of Block Tested | 1 |
| Reference IS code: | IS:2185 (Part 1)- 2005 |

| Sl.No. | Date of Sampling | Date of testing | Area of Cube | Failure load | Compressive strength | Minimum Required compressive strength of individual units |
|---|---|---|---|---|---|---|
| | | | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 25-06-19 | 25-06-19 | 60000 | 311.00 | 5.18 | 5.20 |
| 2 | 25-06-19 | 25-06-19 | 60000 | 312.00 | 5.20 | |
| 3 | 25-06-19 | 25-06-19 | 60000 | 313.00 | 5.22 | |

Consultant's Representative

TEJUS CONSULTANTS

Assistant Executive Engineer,
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Yelahanka Zone, B.B.M.P.,
Bangalore.

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | Construction and Improvments of Toilet in Ward No 08 | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | K.BABU RAJU | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 20 mm down size | Proposed Use | Concrete |
| Sample Location | Plant/At site | Date of Sampling | 25/06/19 |
| | | Date of Testing | 25/06/19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 258 | 258 | 2.58 | 97.42 | 95 - 100 |
| 10.00 mm | 4839 | 5097 | 50.97 | 49.03 | 25 - 55 |
| 4.75 mm | 4215 | 9312 | 93.12 | 6.88 | 0 - 10 |
| Pan | 688 | 10000 | | | |

Remarks :

✓ Satisfactory / Not Satisfactory

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Assistant Executive Engineer,
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Bangalore.

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# Test Report on Cement

| | |
|---|---|
| **Project** | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K.BABU RAJU |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 27-06-19 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 45Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 358 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M15 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 20-6-19 | 27-6-19 | 7 days | 8.120 | 22500 | 215 | 9.56 | 9.53 |
| 2 | 20-6-19 | 27-6-19 | 7 days | 8.130 | 22500 | 219 | 9.73 | |
| 3 | 20-6-19 | 27-6-19 | 7 days | 8.140 | 22500 | 209 | 9.29 | |

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Assistant Executive Engineer,
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Yelahanka Zone, B.B.M.P.
Bangalore.

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## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M15 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 21-06-19 | 28/06/19 | 7 days | 8.122 | 22500 | 210 | 9.33 | 9.21 |
| 2 | 21-06-19 | 28/06/19 | 7 days | 8.146 | 22500 | 208 | 9.24 | |
| 3 | 21-06-19 | 28/06/19 | 7 days | 8.142 | 22500 | 204 | 9.07 | |

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TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

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# Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 29-06-19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 39Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 358 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

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CONSULTANTS

## Test Report on Compressive strength of Solid Block

| | |
|---|---|
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K. BABU RAJU |
| Cross sectional area | 60000mm2 |
| Size of cube | 400mm x 150mm x 200mm |
| No. of Block Tested | 1 |
| Reference IS code: | IS:2185 (Part 1)- 2005 |

| Sl.No. | Date of Sampling | Date of testing | Area of Cube | Failure load | Compressive strength | Minimum Required compressive strength of individual units |
|---|---|---|---|---|---|---|
| | | | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 02/07/19 | 02/07/19 | 60000 | 310.00 | 5.17 | 5.14 |
| 2 | 02/07/19 | 02/07/19 | 60000 | 312.00 | 5.20 | |
| 3 | 02/07/19 | 02/07/19 | 60000 | 304.00 | 5.07 | |

TEJUS CONSULTANTS

Consultant's Representative

Assistant Executive Engineer
Kodigehalli Sub Division
Yelahanka Zone, B.B.M.P
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M20 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 25/06/19 | 02/07/19 | 7 days | 8.122 | 22500 | 310 | 13.78 | 13.82 |
| 2 | 25/06/19 | 02/07/19 | 7 days | 8.146 | 22500 | 311 | 13.82 | |
| 3 | 25/06/19 | 02/07/19 | 7 days | 8.142 | 22500 | 312 | 13.87 | |

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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# Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 03/07/19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 42Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 388Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 5mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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Bangalore.

TEJUS CONSULTANTS

## TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Total Weight: | 10000 gms |

## SIEVE ANALYSIS

| | | | | |
|---|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | CONCRETE | |
| Sample Location | At Site/Plant | Date of Sampling | 03/0719 | |
| | | Date of Testing | 03/0719 | |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 560 | 560 | 5.60 | 94.40 | 90-100 |
| 10.0 | 4675 | 5235 | 52.35 | 47.65 | 40-85 |
| 4.75 | 4542 | 9777 | 97.77 | 2.23 | 0-10 |
| Pan | 223 | 10000 | | | |
| | | | | | |

**Remarks :**

Satisfactory / Not Satisfactory

Note:

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2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.

Authorised Signatory

Assistant ~~Executive~~ Engineer,
Kodigehalli Sub Division,
...nka Zone, B.B.M.P.,

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K. BABU RAJU |

# SPECIFIC GRAVITY AND WATER ABSORPTION

## FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| pe of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| cation/Source | At Site/Plant | Date of Sampling | 6/7/2019 |
| riod of Soaking | 24 hours | Date of Testing | 6/7/2019 |

| .No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 655 | 676 | 660 | |
| B | Weight of oven - dry sample gm. | 648 | 668 | 649 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1687 | 1699 | 1691 | |
| | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.667 | 2.651 | 2.660 | 2.659 |
| | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.080 | 1.198 | 1.695 | 1.324 |

e:

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e results indicated above are based on the tests carried out on the samples
ved in the laboratory /Site.
y Query regarding the report must be reported reported within 15days from the date of testing.

TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 06/07/19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 45Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 375 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| ients | Bruhat Bangalore Mahanagara Palike |
| roject | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| onsultants | Tejus Consultants, Bangalore |
| ontractor | K. BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| otal Weight: | 3000 gms | | |
| ype of laterial | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| ample ocation | At Site/Plant | Date of Sampling | 6/7/2019 |
| | | Date of Testing | 6/7/2019 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 0.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| .75 mm | 205 | 205 | 6.83 | 93.17 | 90 - 100 |
| .36 mm | 301 | 506 | 16.87 | 83.13 | 75 - 100 |
| .18 mm | 410 | 916 | 30.53 | 69.47 | 55 - 90 |
| .600 mm | 485 | 1401 | 46.70 | 53.30 | 35 -59 |
| .300 mm | 765 | 2166 | 72.20 | 27.80 | 8-30 |
| .150 mm | 640 | 2806 | 93.53 | 6.47 | 0 - 10 |
| Pan | 194 | 3000 | | | - |
| | - | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division
Yelahanka Zone, B.B.M.P
Bangalore.

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| **Project** | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K. BABU RAJU |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 06/07/19 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 40Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 350 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 28.00% | 25 % to 35 |

Note:

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| **Project** | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K. BABU RAJU |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 06/07/19 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 38Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 345 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## Test Report on Cement

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Sample ID | Cement |
| Date of Sample Tested | 09/07/19 |
| Sample Supplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 40Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 360 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| **Project** | Construction and Improvments of Toilet in Ward No 08 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K.BABU RAJU |
| **Grade of concrete:** | M20 |
| **Size of cube:** | 150x150x150 mm |
| **Reference IS code:** | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 03/07/19 | 10/07/19 | 7 days | 8.122 | 22500 | 298 | 13.24 | 13.20 |
| 2 | 03/07/19 | 10/07/19 | 7 days | 8.146 | 22500 | 297 | 13.20 | |
| 3 | 03/07/19 | 10/07/19 | 7 days | 8.142 | 22500 | 296 | 13.16 | |

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TEJUS CONSULTANTS

**Authorised Signatory**

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

| Test Report on Compressive strength of Solid Block | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K. BABU RAJU |
| Cross sectional area | 60000mm2 |
| Size of cube | 400mm x 150mm x 200mm |
| No. of Block Tested | 1 |
| Reference IS code: | IS:2185 (Part 1)- 2005 |

| Sl.No. | Date of Sampling | Date of testing | Area of Cube | Failure load | Compressive strength | Minimum Required compressive strength of individual units |
|---|---|---|---|---|---|---|
| | | | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 11/07/19 | 11/07/19 | 60000 | 315.00 | 5.25 | 5.21 |
| 2 | 11/07/19 | 11/07/19 | 60000 | 315.00 | 5.25 | |
| 3 | 11/07/19 | 11/07/19 | 60000 | 308.00 | 5.13 | |

Consultant's Representative

TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## Test Report on Compressive strength of Solid Block

| | |
|---|---|
| **Project** | Construction and Improvments of Toilet in Ward No 08 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | K. BABU RAJU |
| **Cross sectional area** | 60000mm2 |
| **Size of cube** | 400mm x 150mm x 200mm |
| **No. of Block Tested** | 1 |
| **Reference IS code:** | IS:2185 (Part 1)- 2005 |

| Sl.No. | Date of Sampling | Date of testing | Area of Cube | Failure load | Compressive strength | Minimum Required compressive strength of individual units |
|---|---|---|---|---|---|---|
| | | | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 12/07/19 | 12/07/19 | 60000 | 311.00 | 5.18 | 5.20 |
| 2 | 12/07/19 | 12/07/19 | 60000 | 312.00 | 5.20 | |
| 3 | 12/07/19 | 12/07/19 | 60000 | 313.00 | 5.22 | |

Consultant's Representative

TEJUS CONSULTANTS

Assistant Executive Engineer
Kodigehalli Sub Division
Yelahanka Zone
Bangalore

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| roject | Construction and Improvments of Toilet in Ward No 08 |
| lient | Bruhat Bangalore Mahanagar Palike |
| onsultant | TEJUS CONSULTANTS |
| ontractor | K.BABU RAJU |
| ample ID | Cement |
| ate of ample ested | 12/07/19 |
| ample upplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 40Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 362 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

ote:
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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P,
Bangalore.

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| oject | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| ient | Bruhat Bangalore Mahanagar Palike |
| nsultant | TEJUS CONSULTANTS |
| ntractor | K.BABU RAJU |
| mple ID | Cement |
| te of mple sted | 13/07/19 |
| mple pplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 50Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 352 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

te:
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ceived in the laboratory /Site.
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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# Test Report on Cement

| | |
|---|---|
| roject | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| lient | Bruhat Bangalore Mahanagar Palike |
| onsultant | TEJUS CONSULTANTS |
| ontractor | K.BABU RAJU |
| ample ID | Cement |
| ate of ample ested | 15/07/19 |
| ample upplied By | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 52Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 358 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

lote:
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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| roject | Construction and Improvments of Toilet in Ward No 08 |
| ient | Bruhat Bangalore Mahanagar Palike |
| onsultant | TEJUS CONSULTANTS |
| ontractor | K.BABU RAJU |
| rade of oncrete: | M20 |
| ze of cube: | 150x150x150 mm |
| eference IS ode: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 18/06/19 | 16/07/19 | 28 days | 8.136 | 22500 | 450 | 20.00 | 20.04 |
| 2 | 18/06/19 | 16/07/19 | 28 days | 8.142 | 22500 | 451 | 20.04 | |
| 3 | 18/06/19 | 16/07/19 | 28 days | 8.148 | 22500 | 452 | 20.09 | |

Note:

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Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| | BRUHAT BENGALORE MAHANAGARA PALIKE |
| | Construction and Improvments of Toilet in Ward No 08 |
| nts | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| or | K.BABU RAJU |

# SPECIFIC GRAVITY AND WATER ABSORPTION

## FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| Source | At Site/Plant | Date of Sampling | 18-07-19 |
| Soaking | 24 hours | Date of Testing | 18-07-19 |

| Test Property | | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| Weight of sturated surface dry sample gm. | | 655 | 676 | 660 | |
| Weight of oven - dry sample gm. | | 648 | 668 | 649 | |
| Weight of Pycnometer Filled with water gm | | 1275 | 1275 | 1275 | |
| Weight of Pycnometer + sample + water gm | | 1687 | 1699 | 1691 | |
| Bulk specific gravity | $\frac{B}{(C+A-D)}$ | 2.667 | 2.651 | 2.660 | 2.659 |
| Absorption (%) | $\frac{(A-B)*100}{B}$ | 1.080 | 1.198 | 1.695 | 1.324 |

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in the laboratory /Site.
uery regarding the report must be reported reported within 15days from the date of testing.

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| nts | Bruhat Bangalore Mahanagara Palike |
| ject | Construction and Improvments of Toilet in Ward No 08 |
| sultants | Tejus Consultants, Bangalore |
| tractor | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| l Weight: | 3000 gms | | |
| e of erial) | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| mple ation | At Site/Plant | Date of Sampling | 18-07-19 |
| | | Date of Testing | 18-07-19 |

| Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 5 mm | 204 | 204 | 6.80 | 93.20 | 90 - 100 |
| 0 mm | 310 | 514 | 17.13 | 82.87 | 75 - 100 |
| 5 mm | 412 | 926 | 30.87 | 69.13 | 55 - 90 |
| 00 mm | 495 | 1421 | 47.37 | 52.63 | 35 -59 |
| 50 mm | 785 | 2206 | 73.53 | 26.47 | 8-30 |
| n | 635 | 2841 | 94.70 | 5.30 | 0 - 10 |
| | 159 | 3000 | | | - |

marks :

e: ✓ Satisfactory / Not Satisfactory

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ived in the laboratory/Site.
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Authorised Signatory

Assistant Executive Engineer.
Kodigehalli Sub Division.
Yelahanka Zone, B.B.M.P.,
Bangalore.

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE

| | |
|---|---|
| roject | Repairs and Maintenance of Public Toilet in Ward No. [illegible] |
| lient | Bruhat Bangalore Mahanagar Palike |
| onsultant | TEJUS CONSULTANTS |
| ontractor | K.BABU RAJU |
| rade of oncrete: | M15 |
| e of cube: | 150x150x150 mm |
| eference IS ode: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength |
|---|---|---|---|---|---|---|---|
| | | | | Kg | mm² | KN | N/mm² |
| 1 | 20-6-19 | 18-07-19 | 28 days | 8.130 | [illegible] | [illegible] | [illegible] |
| 2 | 20-6-19 | 18-07-19 | 28 days | 8.138 | [illegible] | [illegible] | [illegible] |
| 3 | 20-6-19 | 18-07-19 | 28 days | 8.146 | [illegible] | [illegible] | [illegible] |

The report shall not be reproduced, except in full, without the written approval of the laboratory.
The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
Any Query regarding the report must be reported reported within [illegible] days of the report.

Assistant Executive Engineer
Yelahanka Sub Division
Yelahanka, Bangalore

TEJUS
CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| ect | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| t | Bruhat Bangalore Mahanagar Palike |
| ultant | TEJUS CONSULTANTS |
| ractor | K.BABU RAJU |
| le of rete: | M15 |
| of cube: | 150x150x150 mm |
| rence IS e: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 20-6-19 | 18-07-19 | 28 days | 8.130 | 22500 | 338 | 15.02 | 15.11 |
| 2 | 20-6-19 | 18-07-19 | 28 days | 8.138 | 22500 | 340 | 15.11 | |
| 3 | 20-6-19 | 18-07-19 | 28 days | 8.146 | 22500 | 342 | 15.20 | |

te:
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ceived in the laboratory/Site.
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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## Test Report on Cement

| | |
|---|---|
| | Construction and Improvments of Toilet in Ward No 08 |
| | Bruhat Bangalore Mahanagar Palike |
| | TEJUS CONSULTANTS |
| | K.BABU RAJU |
| | Cement |
| nple | 18/7/2019 |
| pplied By | Agency |

| No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 38Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 371 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | 25 % to 35 |

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regarding the report must be reported reported within 15days from the date of testing.

TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| nts | Bruhat Bangalore Mahanagara Palike |
| ject | Construction and Improvments of Toilet in Ward No 08 |
| nsultants | TEJUS CONSULTANTS |
| ntractor | K.BABU RAJU |
| Total Weight: | 10000 gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| pe of Material | 12.5 mm down size | Proposed Use | CONCRETE |
| mple Location | At Site/Plant | Date of Sampling | 18/07/19 |
| | | Date of Testing | 18/07/19 |

| S Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 565 | 565 | 5.65 | 94.35 | 90-100 |
| 10.0 | 4678 | 5243 | 52.43 | 47.57 | 40-85 |
| 4.75 | 4545 | 9788 | 97.88 | 2.12 | 0-10 |
| Pan | 212 | 10000 | | | |
| | | | | | |

**Remarks :** ✓ Satisfactory / Not Satisfactory

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Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS CONSULTANTS

## TEST REPORT

| | |
|---|---|
| | Bruhat Bangalore Mahanagara Palike |
| | Construction and Improvments of Toilet in Ward No 08 |
| ats | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| or | K.BABU RAJU |
| ight: | 10000 gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Material | 20 mm down size | Proposed Use | Concrete |
| Location | Plant/At site | Date of Sampling | 18/07/19 |
| | | Date of Testing | 18/07/19 |

| ve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 0 mm | 0 | 0 | 0 | 100 | 100 |
| 00 mm | 261 | 261 | 2.61 | 97.39 | 95 - 100 |
| 00 mm | 4841 | 5102 | 51.02 | 48.98 | 25 - 55 |
| 5 mm | 4220 | 9322 | 93.22 | 6.78 | 0 - 10 |
| Pan | 678 | 10000 | | | |

ks :

Satisfactory / Not Satisfactory

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Authorised Signatory

Assistant Executive Engineer.
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M15 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 21-06-19 | 19/7/19 | 28 days | 8.136 | 22500 | 340 | 15.11 | 15.08 |
| 2 | 21-06-19 | 19/7/19 | 28 days | 8.142 | 22500 | 339 | 15.07 | |
| 3 | 21-06-19 | 19/7/19 | 28 days | 8.148 | 22500 | 339 | 15.07 | |

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M20 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 12/07/19 | 19/07/19 | 7 days | 8.122 | 22500 | 302 | 13.42 | 13.56 |
| 2 | 12/07/19 | 19/07/19 | 7 days | 8.146 | 22500 | 305 | 13.56 | |
| 3 | 12/07/19 | 19/07/19 | 7 days | 8.142 | 22500 | 308 | 13.69 | |

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Authorised Signatory

Assistant Executive Engineer,
Kengeri Sub Division,
Zone, B.B.M.P.,
Bangalore.

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# TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M20 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 25/06/19 | 23/07/19 | 28 days | 8.136 | 22500 | 455 | 20.22 | 20.25 |
| 2 | 25/06/19 | 23/07/19 | 28 days | 8.142 | 22500 | 454 | 20.18 | |
| 3 | 25/06/19 | 23/07/19 | 28 days | 8.148 | 22500 | 458 | 20.36 | |

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Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | | |
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| Sample Location | At Site/Plant | Date of Sampling | 25/7/2019 |
| | | Date of Testing | 25/7/2019 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 202 | 202 | 6.73 | 93.27 | 90 - 100 |
| 2.36 mm | 202 | 404 | 13.47 | 86.53 | 75 - 100 |
| 1.18 mm | 405 | 809 | 26.97 | 73.03 | 55 - 90 |
| 0.600 mm | 470 | 1279 | 42.63 | 57.37 | 35 -59 |
| 0.300 mm | 990 | 2269 | 75.63 | 24.37 | 8-30 |
| 0.150 mm | 630 | 2899 | 96.63 | 3.37 | 0 - 10 |
| Pan | 101 | 3000 | | | - |
| | | | | | |

Satisfactory / Not Satisfactory

**Remarks :**

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Authorised Signatory

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Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

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CONSULTANTS

| | |
|---|---|
| | TEST REPORT |
| | BRUHAT BENGALORE MAHANAGARA PALIKE |
| tants | Construction and Improvments of Toilet in Ward No 08 |
| ctor | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| | K.BABU RAJU |

# SPECIFIC GRAVITY AND WATER ABSORPTION

## FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| f Material | Fine aggregate (River Sand/ M sand) | Proposed Use | concrete |
| ion/Source | At Site/Plant | Date of Sampling | 25/7/2019 |
| l of Soaking | 24 hours | Date of Testing | 25/7/2019 |

| No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 655 | 642 | 632 | |
| B | Weight of oven - dry sample gm. | 648 | 635 | 625 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1685 | 1680 | 1670 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.645 | 2.679 | 2.637 | 2.654 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.080 | 1.102 | 1.120 | 1.101 |

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division
Yelahanka Zone, B.B.M.P.
Bangalore.

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## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project: | Construction and Improvement of [illegible] |
| Client: | Brahat Bangalore Mahanagara Palike |
| Consultant: | TEJUS CONSULTANTS |
| Contractor: | K.BABU RAJU |
| Grade of concrete: | M20 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of Testing | No. of Days | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | kg | mm² | kN | N/mm² | N/mm² |
| 1 | 08/07/19 | [illegible] | [illegible] | [illegible] | [illegible] | 450 | 20.00 | 20.10 |
| 2 | 08/07/19 | [illegible] | [illegible] | [illegible] | [illegible] | 453 | 20.09 | |
| 3 | 08/07/19 | [illegible] | [illegible] | [illegible] | [illegible] | 455 | 20.22 | |

**Note:**
1. The report shall not be reproduced except in full without the written approval of the laboratory.
2. The results indicated above are based on the [illegible] received in the laboratory only.
3. Any Query regarding the report must be reported within [illegible] days from the date of testing.

Authorised Signatory

Assistant Executive Engineer
Bangalore

TEJUS
CONSULTANTS

# TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| Project | Construction and Improvments of Toilet in Ward No 08 |
| Client | Bruhat Bangalore Mahanagar Palike |
| Consultant | TEJUS CONSULTANTS |
| Contractor | K.BABU RAJU |
| Grade of concrete: | M20 |
| Size of cube: | 150x150x150 mm |
| Reference IS code: | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 12/07/19 | 09/08/19 | 28 days | 8.136 | 22500 | 455 | 20.22 | 20.19 |
| 2 | 12/07/19 | 09/08/19 | 28 days | 8.142 | 22500 | 455 | 20.22 | |
| 3 | 12/07/19 | 09/08/19 | 28 days | 8.148 | 22500 | 453 | 20.13 | |

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Authorised Signatory

TEJUS CONSULTANTS

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

# BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of the Work : Package-1, includes 10 works of Rs. 146.50 lakhs**

1.Providing Basic Amenities and Procurement of Dustbins in Ward No.08,Kodigenahalli.2.Providing Modern Dust Bins in Banglore City in Ward No 8. 3.Improvements Works to Burial Ground at Kodigehalli in Ward No. 08, Kodigehalli.4.Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. 5. Providing Drinking Water Facility in Maruthinagara and Devinagara in Ward No. 08, Kodigehalli.6.Providing Drinking Water Facility in Ward No. 08, Kodigehalli.7. Construction and Improvments of Tiolet in Ward No 08. 8. Improvements to Footpath and Drains at Sahakaranagara in Ward No. 08, Kodigehalli. 9. Improvements to Roads and Drains in Ward No. 08, Kodigehalli. 10.Improvements of Park in Ward No. 8 Kodigehalli.

## BYATARAYANAPURA DIVISION

## FIRST PART BILL

## TEST REPORTS

TEJUS CONSULTANTS
CONSULTING ENGINEERS AND DESIGNERS
No.58 MIG, 6th Cross, 3rd Main
1st Stage, Basaveshwaranagar
Bangalore-560079
☎ 080 - 23287532
email: tejusconsultants@gmail.com

TEJUS
CONSULTANTS

No. TC / BBMP / BYT-PMC / 394 / 19-20

Date:

To
The Executive Engineer
Byatarayanapura Divison
Bruhat Bangalore Mahanagara Palike
Bangalore – 560 092

Dear Sir

**Sub: First RA bill for the work of Package-1, includes 10 works of Rs. 146.50 lakhs.**

In reference to the above subject, this is to bring to your kind notice that we have scrutinized the **FIRST RA bill** submitted by **M/s KBR infratech Limited, #01, 1st Floor, 8th Main, RMV Extn 2nd Stage, Tatanagara, Bangalore-560094.** towards the above said work and arrived at an amount of **Rs. 8844149 (Rupees Eighty Eight Lakh Forty Four Thousand One Hundred Forty Nine Only**). The work has been completed satisfactorily.

This is for your kind information.

Thank you and assuring you the best of our Services at all the times

For Tejus Consultants
(Nischal M)



+91 80 23287532, tejusconsultants@gmail.com

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS , Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | PCC |
| Sample Location | At Site/Plant | Date of Sampling | 14-06-19 |
| | | Date of Testing | 14-06-19 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 79 | 79 | 2.63 | 97.37 | 95-100 |
| 20.00mm | 1415 | 1494 | 49.80 | 50.20 | 30-70 |
| 10.00mm | 975 | 2469 | 82.30 | 17.70 | 10-35 |
| 4.75mm | 450 | 2919 | 97.30 | 2.70 | 0-5 |
| Pan | 81 | 3000 | 100.00 | 0.00 | |

Remarks : ✓ Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

## TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS , Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | PCC |
| Sample Location | At Site/Plant | Date of Sampling | 14-06-19 |
| | | Date of Testing | 14-06-19 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 90 | 90 | 3.00 | 97.00 | 95-100 |
| 20.00mm | 1410 | 1500 | 50.00 | 50.00 | 30-70 |
| 10.00mm | 975 | 2475 | 82.50 | 17.50 | 10-35 |
| 4.75mm | 445 | 2920 | 97.33 | 2.67 | 0-5 |
| Pan | 80 | 3000 | 100.00 | 0.00 | |

Remarks : ✓ Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

Authorised Signatory

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

TEJUS
CONSULTANTS

# TEST REPORT

| | |
|---|---|
| **Clients** | Bruhat Bangalore Mahanagara Palike |
| **Project** | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| **Consultants** | Tejus Consultants, Bangalore |
| **Contractor** | K.BABU RAJU |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| **Total Weight:** | 3000 gms | **Proposed Use** | P.C.C |
| **Type of Material** | Fine aggregate (River Sand/ M sand) | **Date of Sampling** | 14-06-19 |
| **Sample Location** | At Site/Plant | **Date of Testing** | 14-06-19 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 211 | 211 | 7.03 | 92.97 | 90 - 100 |
| 2.36 mm | 336 | 547 | 18.23 | 81.77 | 75 - 100 |
| 1.18 mm | 416 | 963 | 32.10 | 67.90 | 55 - 90 |
| 0.600 mm | 489 | 1452 | 48.40 | 51.60 | 35 -59 |
| 0.300 mm | 765 | 2217 | 73.90 | 26.10 | 8-30 |
| 0.150 mm | 615 | 2832 | 94.40 | 5.60 | 0 - 10 |
| Pan | 168 | 3000 | | | - |

**Remarks :** ✓ Satisfactory / Not Satisfactory

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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

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CONSULTANTS

## TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Repairs and Maintenance of Public Toilet in Ward No. 08, Kodigehalli. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | K.BABU RAJU |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand/ M sand) | Proposed Use | PCC |
| Location/Source | At Site/Plant | Date of Sampling | 14-06-19 |
| Period of Soaking | 24 hours | Date of Testing | 14-06-19 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 668 | 635 | 672 | |
| B | Weight of oven - dry sample gm. | 659 | 625 | 662 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1694 | 1675 | 1697 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.647 | 2.660 | 2.648 | 2.651 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.366 | 1.600 | 1.511 | 1.492 |

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